Transitioning to Sustainable Development Goals for Water

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Large infrastructure projects threatening ecosystems and livelihoods by diverting water and depriving rural populations of access to water are being promoted in the name of drinking water provisioning. Implementation and monitoring efforts have barely made any progress on Sustainable Development Goals that involve recognising trade-offs and synergies. The Millennium Development Goals (MDGs) were adopted in 2000 to improve the lives of the world's poor. By 2015, most countries had made significant progress towards these goals, but it became clear that development and sustainability could be in conflict (Sachs 2012). Managing the effects of production and consumption on the environment was proving to be a challenge as people aspired to higher standards of living (Griggs et al 2014). But, to pursue the MDGs in isolation would risk undermining the long-term goal of sustainable well-being. Hence, the nations agreed that poverty eradication, changing unsustainable and promoting sustainable patterns of consumption and production, and protecting and managing the natural resource base of economic and social development were not only the overarching objectives but also the essential requirements for sustainable development (United Nations 2015). The deliberations around the Sustainable Development Goal (SDG) 6 (Water and Sanitation) in India are discussed herein. It is argued that the transition in the mindset from MDGs to SDGs has not occurred (Table 1, p 17). Therefore, a paradigm shift in thinking is needed to complete the transition.

Table 1: Targets on Water and Sanitation, MDGs versus SDGs

MDGs	SDGs
7C Halve, by 2015, the proportion of the population without sustainable access to safe drinking water basic sanitation.	6.1 By 2030, achieve universal and equitable access to safe and affordable drinking water for all.
	6.2 By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defection paying special attention to the needs of women and girls, and those in vulnerable situations.
	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimising release of hazardous chemicals and materials, halving the proportion of untreated waste water and substantially increasing recycling and safe reuse globally.
	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater to address water scarcity, and substantially reduce the number of people suffering from water scarcity.
	6.5 By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate.
	6.6 By 2020, protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes.
	6.A By 2030, expand international cooperation and capacity-building support to developing countries in water- and sanitation-related activities and programmes, including water harvesting, desalination, water efficiency, waste water treatment, recycling and reuse technologies.
	6.B Support and strengthen the participation of local communities in improving water and sanitation management.

Source: http://www.un.org/millenniumgoals/environ.shtml; http://www.un.org/sustainabledevelopment/water-and-sanitation/.

The MDGs (Table 1) were very appropriate in an era when a sizeable fraction of India's population did not have access to water or sanitation. But, even as the MDG targets were met, it increasingly became clear that trade-offs were emerging. The MDGs were being met at the expense of the environment or other sectors. Since the MDGs were being followed in silos, some of the trade-offs, especially in the form of negative externalities on other MDGs (interventions to address one MDG would exacerbate progress on another), did not become apparent.

Costs of Megaprojects

Large water infrastructure projects are being justified for the sake of provisioning for drinking water without paying adequate attention to the environmental and social costs, often leading to the destruction of fragile habitats, species extinction, and loss of lives and livelihoods. In the case of

Narmada Bachao Andola

n v Union of India

and Others

, the Supreme Court, in a majority verdict pronounced in October 2000, permitted the Sardar Sarovar Nigam to proceed with the construction of the Sardar Sarovar dam. One of the justifications provided for the construction was the need to meet the drinking water requirements of the people in the drought-stricken regions of Gujarat and Rajasthan under the right to life provision in the Constitution. To quote from the Supreme Court's verdict,

[1]

Water is the basic need for the survival of human beings and is part of right of life and human rights as enshrined in Article 21 of the Constitution of India and can be served only by providing source of water where there is none. The Resolution of the UNO in 86 1977 to which India is a signatory, during the United Nations Water Conference resolved unanimously inter alia as under: All people, whatever their stage of development and their social and economic conditions, have the right to have access to drinking water in quantum and of a quality equal to their basic needs. [p 244]

.... It is a matter of great concern that even after half a century of freedom, water is not available to all citizens even for their basic drinking necessity violating the human right resolution of the UN and Article 21 of the Constitution of India ... [p 245].

This is a consequence of the narrow interpretation of the right to water or treating it in isolation from other uses, users and ecosystems. One conservative estimate suggests the project displaced about 45,000 tribal and peasant families. The construction of canals further displaced another 25,000-odd landholders and submerged 13,744 hectares (ha) of forestland and an equal amount of fertile agricultural land. Another example is the case of the Telangana Water Grid or Mission Bhagiratha, which aims to provide drinking water to Telangana. Under this gigantic project, the Telangana Drinking Water Supply Corporation Limited (TDWSCL) would use 55.5 TMC (thousand million cubic feet) water from Krishna and Godavari rivers to provide safe and sustainable piped drinking water supply to meet domestic water supply norms, with a further 10% to meet industrial requirements. It consists of 26 internal grids, 1.697 lakh km of pipeline, 19 new intake structures apart from the already existing reservoirs. Works costing about ■ 37,813.01 crore have already been sanctioned. (Arunachalam and Rao 2017)[2] Likewise, one rationale given for the Interlinking of Rivers (ILR) project is the provision of safe drinking water by diverting water from “surplus” basins to “deficit” ones. These debates mask the fact that drinking water needs comprise barely 1% of water use in a river basin. Yet, decentralised solutions with a lower ecological and social footprint are given a go-by. Water Reallocation Another area of contestation is the intersectoral reallocation of water occurring in the name of development. In Maharashtra alone, 2,885 TMC of water from 43 dams have been diverted to cities and industries over a period of time (2003 to 2010). The largest diversion took place between 2007 and 2009, affecting 3,57,621 ha of irrigated area (Prayas 2010). On 18 April 2018, Surya Pani Bachav Samiti backed by all political parties declared a “Palghar Bandh” and an indefinite fast to agitate against the reallocation of water from the Surya Irrigation Project. The project, with an irrigation potential of 14,696 ha, was completed around 1990 to serve mostly tribal people. Of the 92 villages in the command area of the project, 88 fall under the purview of the Maharashtra’s Tribal Sub-Plan (TSP), which met 89% of the total project cost. Since 1981–82, water from the project was being reallocated for industrial and domestic purposes in the Vasai–Virar municipal areas of Greater Mumbai. By 2017, 226.93 million cubic metres, almost 80% of live storage, have been reserved for urban water use. The executive engineer in charge of the Surya project had submitted a proposal to reduce the command area. Although some reallocation is inevitable given the extent of urbanisation and industrialisation, the troubling element is that these reallocations have occurred without much deliberation or compensation for lost livelihoods, thereby leading to conflicts. An even bigger concern is that many of the villages in the command area of the project do not have access to good quality drinking water and are not provided water from the Surya project even as water is reallocated to urban centres prioritising the drinking water policy. Thus, the conflict is not only one of agriculture versus urban drinking water, but also one of rural drinking water versus the urban drinking water.[3] If SDG 6 is narrowly interpreted to include only drinking water and sanitation, unchecked infrastructure development to meet water and sanitation targets may have an impact upon vulnerable communities and natural ecosystems. There is a need to reconceptualise the whole policy discourse around water use prioritisation and make a distinction between lifeline and luxury water.

Slippages in Water Access

Under the Swachh Bharat Abhiyan (SBA), there has been a huge effort to provide toilets to households to reduce or even eliminate open defecation to control surface water contamination. But, much of the toilets built under the SBA were poorly designed with little thought given to disposal of the sewage/septage. In recent years, several studies (Rao et al 2012; Shivendra and Ramaraju 2015) have shown that the on-site disposal of faecal matter, without sewers or lined pits, leads to chemical and biological contamination of groundwater. This is particularly problematic because unsewered peri-urban areas are precisely the places that tend to be dependent on groundwater for drinking water supply (Biswas and Jamwal 2018). India’s rural drinking water supply programme has become a “Sisyphean task.” Every year, the government claims that more habitations have been covered with drinking water supply. Yet, progress is negated by “slippage” as fully covered habitations slip back to the not-covered or partially covered state. Although there are no consistent numbers on the primary causes of slippage, one WaterAid (2005) report estimates that in dryland areas, falling groundwater levels may be causing existing functional sources (that is, working handpumps and borewells) to go dry, requiring reinvestment of large capital expenditure. Groundwater depletion, in turn, is caused by over-abstraction for agricultural and industrial uses in many parts of India. In fact, unregulated groundwater extraction is emerging as a major threat to drinking water schemes. Yet, it is precisely the shift to groundwater irrigated agriculture that has allowed many farmers to escape from poverty and the vagaries of the monsoon, and ensure food security. *Discussion* In recent decades, it has become increasingly clear, that targets based on provisioning of water alone are likely to prove counterproductive in the long run. The SDGs recognise that expanding the provision of services comes at a cost; sustaining human well-being in the long run can only be achieved by recognising trade-offs and balancing between them. Most civil society organisations and government departments that are involved in the discourse around the SDGs are also the same that were involved in the MDGs. As a result, there has also been a tendency to think of SDG 6.2 as a slight tweak on the MDGs, focusing on ending open defecation and not on safe sanitation for all. There is also an instrumentalist viewpoint around SDG 6, seeing it as an opportunity to continue to pursue drinking water and sanitation at all costs. The focus of both implementation and monitoring efforts has, therefore, largely been confined to SDG 6.1 (water) and SDG 6.2 (sanitation); barely any progress is being made on the rest. The problem is with SDG 6.3–6.6, which entails recognising trade-offs and synergies and necessitates a paradigm shift in thinking. First, the MDGs were about “positive rights,” that is, people have a right to certain basic services that must be provided by the government. The focus was, therefore, on building, financing and maintaining infrastructure, working with water utilities and urban local bodies. In contrast, the SDGs involve recognising negative rights, that is, people cannot be deprived of their enjoyment of natural resources and a clean environment. This involves conversations about rights to water and whether improved access will occur at the cost of ecosystems or downstream users. Second, transitioning to SDG 6, especially SDG 6.3–6.6, requires taking a basin view of the problem, whereas the MDGs were focused on households. Basin-scale water management requires collaborative decision-making, shared vision planning, negotiation, etc. These are not part of the SDG toolbox yet and monitoring success is likely to be even harder. Third, many of the stakeholders engaged in Integrated Water Resources Management (IWRM), ecosystem flows and water conflicts are largely uninvolved with the SDG process; most of the organisations involved in SDG 6 implementation are still from the Water, Sanitation and Hygiene (WASH) sector, a carryover from the implementation of MDGs. The voices of those involved in the broader IWRM-related issues are not even placed at the table. Meeting SDG targets, thus, requires recognising trade-offs and coordination across sectors and agencies. The SDG implementation efforts must bring in new actors, tools and indicators beyond those that have been involved with MDGs. As implementation efforts are just beginning, it is still possible to achieve a paradigm shift. Notes 1 The full text of the verdict is available on

http://ielrc.org/content/e0008.pdf

, viewed on 5 June 2018. 2 Another source gives the cost estimate as ■ 43,791 **crore**; see **https://en.wikipedia.org/wiki/Mission_Bhagiratha**, viewed on 5 June 2018. 3 The discussion about Surya project is based on “Surya Irrigation Project: Status Report” (2018) by Simran Sumre and Rahul Raja, student interns with the Forum for Policy Dialogue on Water Conflicts in India and Society for Promoting Participative Ecosystem Management (SOPPECOM), Pune. References Arunachalam, B and S V N Rao (2017): “Mission Bhagiratha for Drinking Water Supply in Telangana State,” Chapter 7 in

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